



All Databases

PubMed

Nucleotide

Protein

Genome

Structure

OMIM

PMC

Journals

Books

Search PubMed

for

Go

Clear

Limits

Preview/Index

History

Clipboard

Details

Display

Abstract

Show: 20

Sort

Send to

Text

All: 1

Review: 0



About Entrez

About Version

About PubMed

About Preview

About FAQ

About Serial

About Noteworthy

About Utilities

PubMed Services

PubMed Journals Database

PubMed SH Database

PubMed Single Citation Matcher

PubMed Batch Citation Matcher

PubMed Clinical Queries

PubMed LinkOut

PubMed NCBI (Cubby)

Related Resources

PubMed Related Documents

PubMed Catalog

PubMed Gateway

PubMed NET

PubMed Consumer Health

PubMed Clinical Alerts

PubMed ClinicalTrials.gov

PubMed Med Central

☐ 1: J Neural Transm Suppl. 1999;57:161-77.

Related Articles, Links

## Expression of the dihydropyrimidinase related protein 2 (DRP-2) in Down syndrome and Alzheimer's disease brain is downregulated at the mRNA and dysregulated at the protein level.

Lubec G, Nonaka M, Krapfenbauer K, Gratzer M, Cairns N, Fountoulakis M.

Department of Pediatrics, University of Vienna, Austria. gert.lubec@akhwien.ac.at

Deteriorated migration, axonal pathfinding and wiring of the brain is a main neuropathological feature of Down Syndrome (DS). Information on the underlying mechanisms is still limited, although basic functions of a series of growth factors, cell adhesion molecules, guidance factors and chemoattractants for brain histogenesis have been reported. We used proteomics to detect differences in protein expression between control, DS and Alzheimer's disease brains: In five individual brain regions of 9 individuals of each group we performed two dimensional electrophoresis with MALDI--identification of proteins and determined mRNA levels of DRP-2. Significantly decreased mRNA levels of DRP-2 in four brain regions of patients with DS but not with AD as compared to controls were detected. 2D electrophoresis revealed variable expression of DRP-2 proteins, which showed a high heterogeneity per se. Dysregulation of DRP-2 was found in brains of patients with DS and AD presenting with an inconsistent pattern, which in turn may reflect the inconsistent neuropathological findings in patients with DS and AD. The decrease of mRNA DRP-2 steady state levels in DS along with deteriorated protein expression of this repulsive guidance molecule of the semaphorin/collapsin family, may help to explain deranged migration and histogenesis of DS brain and wiring of AD brain.

PMID: 10666674 [PubMed - indexed for MEDLINE]

Display

Abstract

Show: 20

Sort

Send to

Text

Write to the Help Desk

NCBI | NLM | NIH

Department of Health &amp; Human Services

Privacy Statement | Freedom of Information Act | Disclaimer

Mar 14 2005 07:08:36

BEST AVAILABLE COPY